WE CLAIM:

1. A method for treating a vision disorder, improving vision, treating memory impairment, or enhancing memory performance in an animal, which comprises administering to said animal an effective amount of a heterocyclic ester or amide compound.

2. The method of claim 1, wherein the heterocyclic ester or amide is immunosuppressive or non-immunosuppressive.

3. The method of claim 1, wherein the heterocyclic ester or amide has an affinity for an FKBP-type immunophilin.

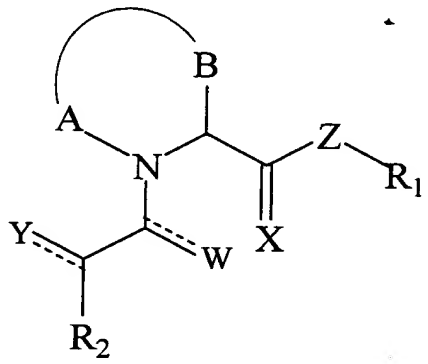
4. The method of claim 3, wherein the FKBP-type immunophilin is FKBP-12.

5. The method of claim 1, wherein the vision disorder is selected from the group consisting of: visual impairments; orbital disorders; disorders of the lacrimal apparatus; disorders of the eyelids; disorders of the conjunctiva; disorders of the cornea; cataract; disorders of the uveal tract; disorders of the retina; disorders of the optic nerve or visual pathways; free radical induced eye disorders and diseases; immunologically-mediated eye

disorders and diseases; eye injuries; and symptoms and complications of eye disease, eye disorder, or eye injury.

6. The method of claim 1, which is for improving naturally-occurring vision in an animal, in the absence of any opthalmologic disorder, disease, or injury.

7. The method of claim 1, wherein the heterocyclic ester or amide is a compound of formula I



I

or a pharmaceutically acceptable salt, ester, or solvate thereof, wherein:

A and B, together with the nitrogen and carbon atoms to which they are respectively attached, form a 5-7 membered saturated or unsaturated heterocyclic ring containing, in addition to the nitrogen atom, one or more additional O, S, SO, SO_2, N, NH, or NR_1 heteroatom;

X is O or S;

Z is O, NH, NR_1, or a bond

W and Y are independently O, S, CH_2, or H_2;

R_1 is C_1-C_6 straight or branched chain alkyl or C_2-C_6

straight or branched chain alkenyl, which is substituted with one or more substituent(s) independently selected in one or more position(s) with $(Ar_1)_n$, C_1-C_6 straight or branched chain alkyl or C_2-C_6 straight or branched chain alkenyl substituted with $(Ar_1)_n$, C_3-C_8 cycloalkyl, C_1-C_6 straight or branched chain alkyl or C_2-C_6 straight or branched chain alkenyl substituted with C_3-C_8 cycloalkyl, and Ar_2;

n is 1 or 2;

R_2 is either C_1-C_9 straight or branched chain alkyl, C_2-C_9 straight or branched chain alkenyl, C_3-C_8 cycloalkyl, C_5-C_7 cycloalkenyl or Ar_1, wherein said alkyl, alkenyl, cycloalkyl or cycloalkenyl is either unsubstituted or substituted with one or more substituent(s) independently selected from the group consisting of C_1-C_4 straight or branched chain alkyl, C_2-C_4 straight or branched chain alkenyl, and hydroxy; and

Ar_1 and Ar_2 are independently an alicyclic or aromatic, mono-, bi- or tricyclic, carbo- or heterocyclic ring, wherein the ring is either unsubstituted or substituted with one or more substituent(s) independently selected from the group consisting of halo, hydroxy, nitro, trifluoromethyl, C_1-C_6 straight or branched chain alkyl, C_2-C_6 straight or branched chain alkenyl, C_1-C_4 alkoxy, C_2-C_4 alkenyloxy, phenoxy, benzyloxy, and amino; wherein the individual ring size is 5-6 members; and wherein the heterocyclic ring contains 1-6 heteroatom(s) independently selected from the group consisting of O, N, and S.

B

8. The method of claim 1, 22 wherein the mono- or bicyclic, carbo- or heterocyclic ring is selected from the group consisting of naphthyl, indolyl, furyl, thiazolyl, thienyl, pyridyl, quinolinyl, isoquinolinyl, fluorenyl, and phenyl.

B

9. The method of claim 22 1, wherein the one or more additional heteroatom(s) in the 5-7 membered saturated or unsaturated heterocyclic ring is NH or NR_1.

10. The method of claim 1, wherein the vision disorder is selected from the group consisting of: visual impairments; orbital disorders; disorders of the lacrimal apparatus; disorders of the eyelids; disorders of the conjunctiva; disorders of the cornea; cataract; disorders of the uveal tract; disorders of the retina; disorders of the optic nerve or visual pathways; free radical induced eye disorders and diseases; immunologically-mediated eye disorders and diseases; eye injuries; and symptoms and complications of eye disease, eye disorder, or eye injury.

11. The method of claim 10, wherein vision regeneration is undertaken to improve naturally-occurring vision in an animal, in the absence of any opthalmologic disorder, disease, or injury.

~~12. A pharmaceutical composition which comprises:~~

(i) an effective amount of a heterocyclic ester or amide for treating a vision disorder, improving vision, treating memory impairment, or enhancing memory performance in an animal; and

(ii) a pharmaceutically acceptable carrier.

13. The pharmaceutical composition of claim 12, wherein the heterocyclic ester or amide is immunosuppressive or non-immunosuppressive.

14. The pharmaceutical composition of claim 12, wherein the heterocyclic ester or amide has an affinity for an FKBP-type immunophilin.

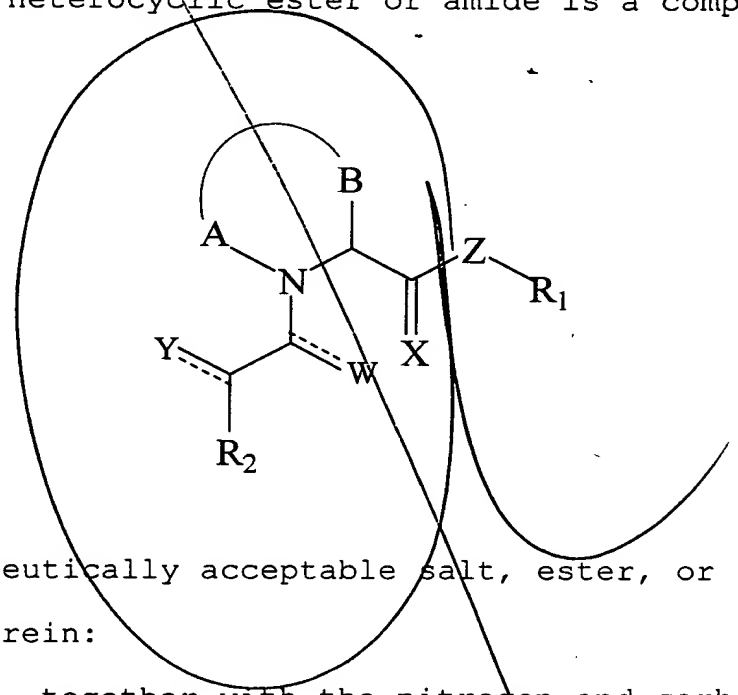
15. The pharmaceutical composition of claim 14, wherein the FKBP-type immunophilin is FKBP-12.

16. The pharmaceutical composition of claim 12, wherein the vision disorder is selected from the group consisting of: visual impairments; orbital disorders; disorders of the lacrimal apparatus; disorders of the eyelids; disorders of the conjunctiva; disorders of the cornea; cataract; disorders of the uveal tract; disorders of the retina; disorders of the optic nerve or visual pathways; free radical induced eye disorders and diseases; immunologically-mediated eye disorders and diseases; eye injuries; and symptoms and complications of eye disease, eye

disorder, or eye injury.

17. The pharmaceutical composition of claim 12, which is for improving naturally-occurring vision in an animal, in the absence of any opthalmologic disorder, disease, or injury.

18. The pharmaceutical composition of claim 12, wherein the heterocyclic ester or amide is a compound of formula I



I

or a pharmaceutically acceptable salt, ester, or solvate thereof, wherein:

A and B, together with the nitrogen and carbon atoms to which they are respectively attached, form a 5-7 membered saturated or unsaturated heterocyclic ring containing, in addition to the nitrogen atom, one or more additional O, S, SO, SO_2, N, NH, or NR_1 heteroatom;

X is O or S;

Z is O, NH, or NR_1;

W and Y are independently O, S, CH_2, or H_2;

R_1 is C_1-C_6 straight or branched chain alkyl or C_2-C_6 straight or branched chain alkenyl, which is substituted with one or more substituent(s) independently selected from the group consisting of $(Ar_1)_n$, C_1-C_6 straight or branched chain alkyl or C_2-C_6 straight or branched chain alkenyl substituted with $(Ar_1)_n$, C_3-C_8 cycloalkyl, C_1-C_6 straight or branched chain alkyl or C_2-C_6 straight or branched chain alkenyl substituted with C_3-C_8 cycloalkyl, and Ar_2;

n is 1 or 2;

R_2 is either C_1-C_9 straight or branched chain alkyl, C_2-C_9 straight or branched chain alkenyl, C_3-C_8 cycloalkyl, C_5-C_7 cycloalkenyl or Ar_1, wherein said alkyl, alkenyl, cycloalkyl or cycloalkenyl is either unsubstituted or substituted with one or more substituent(s) independently selected from the group consisting of C_1-C_4 straight or branched chain alkyl, C_2-C_4 straight or branched chain alkenyl, and hydroxy; and

Ar_1 and Ar_2 are independently an alicyclic or aromatic, mono-, bi- or tricyclic, carbo- or heterocyclic ring, wherein the ring is either unsubstituted or substituted with one or more substituent(s) independently selected from the group consisting of halo, hydroxy, nitro, trifluoromethyl, C_1-C_6 straight or branched chain alkyl, C_2-C_6 straight or branched chain alkenyl, C_1-C_4 alkoxy, C_2-C_4 alkenyloxy, phenoxy, benzyloxy, and amino; wherein the individual ring size is 5-6 members; and wherein the heterocyclic ring contains 1-6 heteroatom(s) independently selected from the group consisting of O, N, and S.

19. The pharmaceutical composition of claim 18, wherein the mono- or bicyclic, carbo- or heterocyclic ring is selected from the group consisting of naphthyl, indolyl, furyl, thiazolyl, thienyl, pyridyl, quinolinyl, isoquinolinyl, fluorenyl, and phenyl.

20. The pharmaceutical composition of claim 18, wherein the one or more additional heteroatom(s) in the 5-7 membered saturated or unsaturated heterocyclic ring is NH or NR_1.

add A^4

add B^2